

MEMORANDUM

TO: Governing Board Members

FROM: Tommy B. Strowd, P.E., Division Director, Operations, Maintenance & Construction

DATE: December 15, 2011

SUBJECT: SCADA System Study project request use of Westin Engineering Inc. via contract with the State of Virginia Hampton Roads Sanitation District

Background:

Over 15 years ago the South Florida Water Management District implemented a Supervisory Control and Data Acquisition (SCADA) System to manage the infrastructure that operates the District's water control structures and to supply the operations and hydro-meteorological data needed to fulfill the District's mission. The District operates and maintains the surface-water network, including a SCADA systems monitor, which controls over 750 operational sites.

The District is in a period of continued expansion, driven in part by the Comprehensive Everglades Restoration Plan, while the system is aging. The core of the SCADA system (OASyS DNA 7.4) is unable to support the growing demands and requirements, and components of the current version will be unsupported by July 2015. In addition to known issues on the OASyS 7.5 upgrade, the proprietary nature of the software has resulted in vendor lock-in issues in the form of increased costs and extended waits for requested solutions. Continuing to operate in the current environment will pose a number of risks and added costs for the District. The options available to the District are to continue with the current technology and upgrade the aging components or explore and select alternative solutions.

An unbiased and independent evaluation is needed to assess the overall effectiveness of the current SCADA system against current and future business requirements, industry best practices and emerging SCADA solutions. The assessment will focus on the appropriateness of the overall SCADA architectural specifications pertaining to the operations software and related hardware, while considering the District's user requirements and needs. The assessment will identify any gaps and provide options for appropriate SCADA systems that can provide years of cost-effective, secure, dependable process control while remaining open for future options. Additionally, a year-to-date cost of ownership will be calculated and near term (2-3 years) costs will be assessed to determine if these are in line with industry standards.

This request is to authorize entering into a contract with Westin Engineering, Inc. for SCADA System Study, for the time period January 3, 2012 to June 30, 2012, using the State of Virginia Hampton Roads Sanitation District contract for Professional Services date July 28, 2009, in the amount of \$253,000 for which ad valorem funds are budgeted.

How this helps meet the District's 10-year Strategic Plan:

Pursuant to the Strategic Direction outlined in the SFWMD 2010 – 2020 Strategic Plan "Operating cost must be constantly re-assessed and re-adjusted in support of mission-critical activities."

Funding Source:

Ad valorem funding within the SCADA Installation & Support Division's Annual Operating Budget

This Board item impacts what areas of the District, both resource areas and geography:

- Information Technology
- Procurement
- Budget Bureau
- OM&C
 - Infrastructure Management
 - Water Control Operations
 - Hydro Data Management
 - SCADA
 - Pump Stations

What concerns could this Board item raise?

If the board does not approve; costs may be excessive and the right skill set may not be available to give an unbiased and independent evaluation.

Why should the Governing Board approve this item?

The board should approve this item because the assessment will focus on the appropriateness of the overall SCADA architectural specifications pertaining to the operations software and related hardware, while considering the District's user requirements and needs. The assessment will identify any gaps and provide options for appropriate SCADA systems that can provide years of cost-effective, secure, dependable process control while remaining open for future options. Additionally, a year-to-date cost of ownership will be calculated and near term (2-3 years) costs will be assessed to determine if these are in line with industry standards. The State of Virginia Hampton Roads Sanitation District is contracted with a SCADA skilled company, Westin Engineering Inc, which does this type of assessment regularly. The knowledge and process will support the district needs while requiring the least amount of time to complete; saving the district monies.

If you have any questions, please do not hesitate to call me at ext. 6998

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